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Safety

HEAT PRODUCING DEVICES



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Fighter Wing Instruction (FWI) implements AFPD 91-2, *Safety Programs*, and establishes procedures followed when using the continuous hand rotary sealer and/or heat shrink gun in any explosive area. Personnel in the 926th Maintenance Squadron and 706 Fighter Squadron Maintenance Unit who use these devices must comply with this instruction.

SUMMARY OF REVISIONS

Revises Logistics Operating Instruction to Fighter Wing Instruction; revises series number and title; updates language and format. A (I) indicates revisions from the previous edition.

1. Policy:

- 1.1. The steps in this FWI must be taken to prevent damage, fire, personal injury and possible explosion while using the heat sealer.
- 1.2. The rotary sealer is specifically designed to seal scrim-backed or kraft backed paper/foil, whether polyethylene lined, vinyl or pliofilm lined. The heat shrink gun is specifically used to shrink heat shrink tubing around wiring and electric connections.
- 1.3. The use of devices which produce temperatures higher than 228 degrees Fahrenheit (109 degrees C) in any explosives area should be confined to essential, temporary use.

2. Procedures:

2.1. Continuous Hand Rotary Sealer:

- 2.1.1. Items are placed in barrier bags and resealed with the continuous hand rotary sealer to extend shelf life of items.

2.1.2. Perform a pre-use inspection on the sealer to ensure it is in good operating condition before applying electric power.

2.1.3. Never leave the heat sealer unattended. The operator should stay with the heat sealer while it is in use, from the time it is taken out of the toolbox until it is returned to the toolbox.

2.1.4. Use care to prevent contact with flammable material and one's self, as personal injury could result.

2.1.5. Establish speed and temperature relationship by testing sample barrier bag material before trying to seal munitions items.

2.1.6. Ensure seals are made as to allow plenty of room inside the bag for items being sealed.

2.1.7. Unplug the heat sealer and allow it to cool down below 90 degrees Fahrenheit before returning it to the toolbox.

2.2. Heat Shrink Gun:

CAUTION: This type of product is capable of generating up to 1000 degrees Fahrenheit heat, enough to melt solder, ignite most flammable materials, and cause third degree burns to human tissue. Use caution in its use and avoid electric shock potential in wet environments.

2.2.1. Perform a pre-use inspection on heat gun to ensure it is in good operating condition before applying electric power.

2.2.2. Ensure the power switch is in the **OFF** position. Plug heater gun into a 120-volt ground outlet and place switch in **HOT** position. Allow approximately one minute for the temperature to stabilize. The air temperature of the heater gun can be increased by closing the air regulator on the cover of the heater gun.

2.2.3. Use care not to overheat when shrinking tubing. Overheating could damage the electric connections, melting solder and wiring insulation. Use only enough to get the desired shrink.

2.2.4. When shutting the heater gun down, ensure the switch is in the **COLD** position with blower on for at least one minute to allow the element to cool down. This will extend the life of the element and prevent any damage to the housing from residual heat in the nozzle.

2.2.5. Use care in handling the heater gun since the ceramic element is subject to breakage if mis-handled, particularly when hot.

3. Safety Precautions:

3.1. Operators must keep hands out of the heated stream of air and never grasp the heater gun by the nozzle.

3.2. Never allow the heater gun to operate unattended.

3.3. Unplug the heater gun when not in use.

3.4. Do not use heater gun around combustible material.

3.5. Use heater gun indoors only.

3.6. Keep the end of the nozzle at least one inch away from the surface being heated.

3.7. Ensure the ventilation openings are kept clean and free of foreign matter. **WARNING: Disconnect the heater gun from the power source before cleaning. DO NOT attempt to clean by inserting pointed objects through openings. Clean with 30 pounds of compressed air only.**

3.8. **WARNING:** Do not attempt to immerse the heater gun in water.

3.9. **CAUTION:** If cord should become frayed or any breaks or tears in the insulation jacket should occur, **DO NOT** use and report condition to your supervisor.

ROBERT E. LYTLE, Col, USAFR
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